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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,383	11/26/2003	Kunihisa Obi	009523-0307056	6013
909	7590	10/02/2006	EXAMINER	
PILLSBURY WINTHROP SHAW PITTMAN, LLP			MAY, ROBERT J	
P.O. BOX 10500			ART UNIT	
MCLEAN, VA 22102			PAPER NUMBER	
			2875	

DATE MAILED: 10/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/721,383

Applicant(s)

OBI, KUNIHISA

Examiner

Robert May

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 7/12/06.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Objections*

Claim 7 it is unclear what "each other" is referring to.

Regarding Claim 7, there is a period in the middle of the claim on line 7.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohsato in view of Itoi (JP60159013A).

Regarding Claim 1, Ohsato discloses in Fig 15 ~~an~~ an error detecting apparatus which utilizes a composite lens (30) which comprises an inorganic component or glass lens and an organic component or plastic lens (Col 15, Lines 51-53) whereas the composite lens resides within the optical path of a laser light generator (1). Ohsato fails to disclose an optical element wherein composite material is made from organic and inorganic components mixed with each other. Itoi discloses a plastic lens made by mixing an inorganic element with an inorganic component to improve scuff resistance of the lens. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the optical component of Ohsato by mixing the

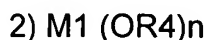
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organic component with the inorganic component to improve the scuff resistance as taught by Itoi.

Regarding Claims 2 and 4, Ohsato fails to explicitly disclose a composite lens of an organic/inorganic composition where the organic component has a glass transition temperature greater than 150 degrees Celsius. However, it would have been obvious to one of ordinary skill in the art to have an organic component with a glass transition temperature greater than 150 degrees C because one would be motivated to reduce the overall size of the detection apparatus by reducing the geometric dimensions including the distance between the composite lens and light source. In light of the applicants admission that on Page 3 of the specification, the temperature near the light source increases to nearly 150 degrees C and the organic component of the composite lens in Ohsato must be able to withstand this temperature if the distance between the lens and light source were reduced.

Regarding Claim 7, Ohsato fails to disclose the composite materials claimed. However, Itoi discloses the organic/inorganic composite material made up of an IPN structure wherein the organic components and inorganic components are interinvolved and interpenetrated into each other by the mixing step which effects the polymerization of the material which means the mixture takes place on a molecular level for enhancing the scuff resistance of a lens (Abstract). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the composite material Ohsato with the IPN structure mixed at a molecular level of Itoi for enhancing the scuff resistance of the lens.

Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohsato and Itoi as applied to claims 1, 2 and 4 above, and further in view of Kubota (JP 60213902 A). Ohsato fails to disclose an organic/inorganic component comprising at least one of the components represented by either of the two following formulas:



However, Kubota discloses an antireflective, scratch resistant dyeable coating for a lens comprising an element represented by the following formula  $R_1R_2Si(OR_3)_{3-a}$  wherein a is an integer that is either 0 or 1. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a coating as disclosed by Kubota be part of the organic/inorganic component in order to have an antireflective, scratch resistant dyeable coating for a lens.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohsato and Itoi as applied to claim 1 above, and further in view of Fujimoto. Ohsato fails to disclose the illumination system as being used for a microscope, however Fujimoto discloses an illumination system being used for a microscope (abstract) for illuminating the viewing field. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the illumination apparatus of Ohsato for a microscope for illuminating the viewing field.

***Response to Arguments***

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert May whose telephone number is (571) 272-5919. The examiner can normally be reached between 9 am– 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax number for the

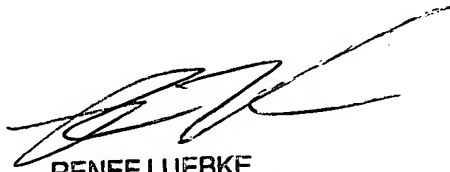
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organization where this application or proceeding is assigned is (571) 273-8300 for all communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval PAIR system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RM

9/25/06



RENEE LUEBKE  
PRIMARY EXAMINER